

marked-up version of the claim is attached hereto on a separate page.

On page 2 of the above-identified Office action, claims 1 to 12 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. More specifically, the Examiner states that the "tube end section region is not '~~in~~ said aperture.'" (Emphasis original.) The Examiner is correct. Applicants have amended claim 1 to correct a typographical error in the claim and to provide that "one of said two end sections [of the tube section has] a circumferentially positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner at said aperture." This change is merely provided to correct the typographical error and does not narrow the scope of the claim for any reason related to the statutory requirements for a patent. Also, the changes are not provided for overcoming the prior art. It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

On pages 2 to 3 of the above-identified Office action, claims 1 to 7 have been rejected as being fully anticipated by Comstock (U.S. 1,898,977) or by Schmidberger (DE 1 004 207) under 35 U.S.C. § 102.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, a heat insulated wall, including:

two outer covering layers having contours and disposed at a distance from one another, the two outer covering layers connected to one another in a vacuum-tight manner by a connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an intermediate space that can be evacuated and filled with an evacuable heat insulating material, at least one of the two outer covering layers having an aperture formed therein; and

a tube section including two end sections, one of the two end sections having a circumferentially positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner at the aperture of the at least one of the two outer covering layers and being formed to

compensate for positional imprecisions between the aperture and the tube section.

Comstock, which issued in 1928, discloses a vacuum insulation as applied to refrigerators and the like. Comstock sets forth on page 1, line 98, to page 2, line 20, that at the time of his invention it was "extremely difficult to provide absolutely air or gas-tight housings of considerable size in commercial quantities, especially when these vacuum containers are partially formed of metal sheets with soldered and/or welded joints or seams." Comstock at page 1, line 97, to page 2, line 3. Because, in Comstock's time, the vacuum present in insulation walls leaked and was difficult to maintain, Comstock invented a "pumping means to maintain a comparatively high vacuum within the insulating chamber." Comstock at page 2, lines 7 to 10. The pumping means is configured to be used "in substantial continuous operation when the vacuum wall is in use as an insulating factor." Comstock at page 10, lines 9 to 12. It is this pumping means that is the primary subject of Comstock.

On pages 8 and 9, Comstock describes the non-conducting bridge that is illustrated primarily in Figs. 4 and 5. Nowhere does Comstock disclose or suggest any aspect of positional tolerance correction, let alone describe a tube section end

that compensates for positional imprecisions between the aperture and the tube section as set forth in claim 1.

Similarly, nowhere does Schmidberger disclose or suggest the tolerance equalization feature of the invention of the instant application.

The flanged tube of applicants' device does not support the two outer layers. It is the connecting profile disposed in the peripheral region of the cover layers and connecting the two cover layers to each other that mutually supports the two cover layers in the evacuated state. The evacuable thermal insulation material disposed between the cover layers also supports the cover layers. Such a configuration guarantees the support necessary for the two cover layers against one another for thermally insulating walls based on vacuum insulation technology. Support using the flanged tube has undesirable effects. Specifically, partial supporting with a pipe portion having flange-like corners leads to problematic dips between the support points in an evacuated thermally insulated wall. Such dips are unacceptable in thermally insulating walls.

This disadvantage leads directly to Schmidberger, which does not contain a thermally insulating wall based on vacuum insulation technology. As such, the support measure 10

applied between the Schmidberger cover layers is entirely realistic for that application. It is precisely this type of support that is used for conventional modes of insulation such as disclosed by Schmidberger. However, one having ordinary skill in the art of vacuum-insulating heat blocking walls knows that such support is totally unusable for the invention of the instant application because the high-performance heat blockage that is provided by vacuum insulation is entirely eliminated by the heat bridges -- arising as a consequence of the separating support pieces 10. Such a distinction demonstrates that the two types of heat insulation, namely, that proposed by Schmidberger and that according to the invention of the instant application, are in no way comparable and are, in fact, incompatible.

At best, applicants respectfully believe that any teaching, suggestion, or incentive possibly derived from Comstock or Schmidberger is only present with hindsight judgment in view of the instant application. "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references **themselves** must provide some teaching whereby the applicant's combination would have been obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis

added). Here, no such teachings are present in any of the cited references.

Applicants respectfully believe that vacuum-insulation technology is not a subdivision of insulation technology as a whole and, therefore, is not within the preview of one having ordinary skill in the art of insulation technology. Heat blockage based on vacuum-insulation technology is not a subgroup of conventional heat insulation technology.

Conventional technology almost exclusively uses foaming heat blocking materials, such as polyurethane or the like. Thus, such technology calls upon the knowledge of a chemist.

Vacuum-insulation technology, in contrast, is concerned mainly with free pathways of air molecules. Consequently, the knowledge of a physicist prevails. By definition, the different types of problems arising in these two technologies (which run parallel to each other rather than in serial) require the use of different experts for overcoming the problems separately conditioned by each of the two different technologies.

Clearly, neither Comstock nor Schmidberger shows a positional compensator as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either

show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

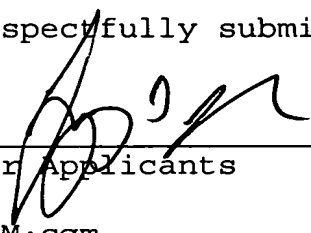
Insofar as claim 1 is patentable, and due to the fact that claims 8 to 12 are ultimately dependent upon claim 1, applicants respectfully believe that these claims are patentable as well. Accordingly, applicants respectfully believe that the rejection of claims 8 to 12 on page 3 of the Office action under 35 U.S.C. § 103 is now moot.

In view of the foregoing, reconsideration and allowance of claims 1 to 12 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Please charge any fees that might be due with respect to
Sections 1.16 and 1.17 to the Deposit Account of Lerner and
Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicants

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Marked-up Claim:

Claim 1 (twice amended). A heat insulated wall, comprising:

a connecting profile;

an evacuable heat insulating material;

two outer covering layers having contours and disposed at a distance from one another, said two outer covering layers connected to one another in a vacuum-tight manner by said connecting profile running along said contours, said two outer covering layers together with said connecting profile enclosing an intermediate space that can be evacuated and filled with said evacuable heat insulating material, at least one of said two outer covering layers having an aperture formed therein; and

a tube section including two end sections, at least one of said two end sections having a circumferentially positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner [in] at said aperture of said at least one of said two outer covering layers and being formed to compensate for positional imprecisions between said aperture and said tube section.